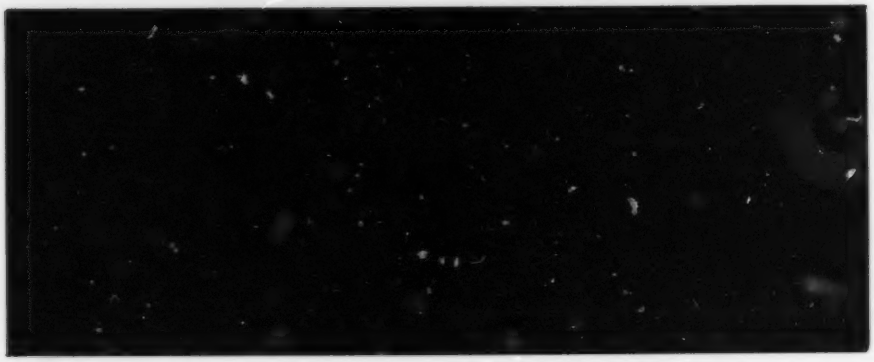
ADF

Saskatchewan
Agriculture
Development Fund



Keeping the agriculture and food industries competitive through Research, Development and Demonstration.

91-02566/

FINAL REPORT - COMMUNITY SHEEP PASTURE

PROJECT NO. 2.5-1

Saskatchewan Sheep and Wool Marketing Commission is most pleased to submit this report and wished to express appreciation to the Government of Saskatchewan and more specifically the Department of Agriculture's E.R.D.A. funding program.

This report consists of the following:

- The Main Report
- Item I - Fence Design
- Item II - Creep Feeding Lambs on Irrigated Pasture
- Item III - Finishing and Marketing Options for Lambs Raised on Irrigated Pasture
- Item IV - Annual and Financial Reports for 1986-87
- Item V - Annual and Financial Report for 1988
- Item VI - Inventory of Equipment

THE MAIN REPORT

PROJECT OBJECTIVES:

To establish an irrigated pasture for sheep to test the effectiveness of a predator control fence.

To determine if lamb marketing opportunities are enhanced by the assembly of large uniform lots.

To determine the ewe-unit carrying capacity of irrigated forages and the forage's capability of producing finished, or nearly finished, lambs on the pasture.

PROCEDURE

A 130-acre pivot irrigated area of land was rented in 1986 and seeded to forage. Fences were constructed in the fall of 1986 and the spring of 1987 and made ready for sheep to enter the pasture on May 15, 1987. Seven hundred and sixty-four ewes and 1006 lambs were placed on the pasture in 1987 with the total grazing season being from May 15 to October 8.

In the 1988 grazing season, 1236 ewes and 1610 lambs were placed on the pasture with the total grazing season being from May 15 to October 3.

MANAGEMENT

a) Forage Management

i) Forage Species

A forage mixture including tall fescue, perennial ryegrass, kentucky bluegrass and timothy was used to form the pasture forage.

ii) Fertility

One hundred and fifty pounds of phosphate was applied preplant incorporated at the time of establishment.

Two hundred pounds per year of nitrogen was applied in each of the two grazing years. Nitrogen was applied at a rate of 50 pounds per acre in early spring and followed by six 25 pounds per acre applications throughout the growing season. One exception was that 50 pounds of nitrogen was applied in the fall of 1987 in one application but this is not recommended as the rapid forage regrowth caused some digestive problems in the sheep.

iii) Water

Twenty-five inches of irrigation water, along with 6.2 inches of rainfall, constituted the 1987 water availability for the pasture.

Twenty-eight and a half inches of irrigation water, along with 3.7 inches of rainfall, constituted the 1988 water availability for the pasture.

The irrigation water was applied in .75 to 1-inch increments. To apply these volumes of water the system irrigated the areas almost continuously with the only exceptions being after a significant rainfall event or for the time period that the sheep were grazing a particular paddock.

b) Sheep Management

i) Fence

The perimeter of the pasture was fenced with an electrified eight-wire predator control fence. Within the pasture, paddocks were formed using various fencing materials, including three strands of smooth 16-gauge wire, five strands of plastic-steel wire and a plastic electrified mesh system. An electrified night corral was constructed using thirteen wires designed to protect the sheep from all predators so that the shepherd wasn't required to be with the sheep at night. (More details are provided in Item #1 attached.)

ii) Grazing Management

The pasture was divided into eight paddocks and the sheep were allowed access to each paddock for from three to five days or until the forage was grazed down to .5 to 1 inch. At this point the flock was moved to the next paddock and the grazed paddock was allowed sufficient time to recover to a 6 to 8 inch growth stage.

In both 1987 and 1988, areas of the pasture had to be cut for hay in June as the regrowth on grazed areas was ready for regrazing prior to the completions of the first full grazing cycle of all eight paddocks. During the second grazing cycle the growth rate of the forage had slowed down so that all eight paddocks were required to allow a grazed area sufficient time to regrow. The sheep were allowed access to the pasture twice a day, morning and night, and they were moved back to the night corral during the rest of the day.

iii) Grazing Period

The grazing period for both years, 1987 and 1988, was from mid-May to the end of the first week in October. In both years, however, haying was required in June to handle excess production and the pasture rapidly declined production in mid-July and August, requiring either lambs to be removed, 440 in 1987 and 200 in 1988, or feeding back of hay that was harvested earlier in the season. The patrons preferred to remove the lambs and sell the hay as the feeding of hay tended to cause the sheep to become lazy and more reluctant to graze fully.

RESULTS

In 1987, 1770 sheep and lambs grazed the pasture and 40 tons of hay was produced. In 1987, a randomly selected group of lambs were monitored for weight gains and the lambs monitored gained approximately .5 pounds per day. A group of 440 lambs weighed approximately 90 pounds by August 7 and could have been sold as finished at 90 pounds directly off the pasture; however, the patrons preferred to take the lambs home for further finishing to reach a more desirable 110 to 120 pound weight.

In 1988, 2845 sheep and lambs grazed the pasture and again 40 tons of hay was produced. However, in 1988 the lamb gains were drastically affected by the severe heat. The lambs were not provided with shelter which caused stress in the lambs in 1988. Also, the forage quality was reduced due to the high heat in 1988, resulting in general poor performance from the lambs. Lambs on creep feed gained .36 pounds per day while non-creep fed lambs gained only .17 pounds per day. Only a small portion, 196, of the 1610 lamb flock were provided with creep feed. The creep fed lambs were part of a creep-feeding trial conducted at the pasture in 1988 by the University of Saskatchewan and funded by the IBED agreement. The results are attached as Item #2.

In 1988 an IBED funded lamb finishing component was added to the project to determine costs and performance of lambs placed on a finishing ration directly off the pasture. Two hundred more lambs were placed on feed on July 15 weighing 75 pounds each and they were finished on September 21 weighing 112 pounds. The lambs gained an average of .55 pounds per day which is low but was intentionally held down so as to wait for the market price to strengthen. Results of that trial are attached as Item #3.

OBSERVATIONS AND CONCLUSIONS:

- The predator control fence was 100% effective.

- The forage species utilized for the pasture are capable of withstanding high grazing intensity and perform well providing they are grazed intensively for a short duration and then are allowed sufficient time to regrow to about 6 inches.

- Even at the high stocking rate, 9 ewe units per acre, used in this project, one-quarter of the pasture had to be cut for hay during the first grazing cycle. The cutting of hay is easier to manage then is adjusting the animal numbers to match to forage growth, etc.

- A low quality dry roughage feed should be provided free choice to the sheep in the night corral. The sheep in this trial seemed to crave straw and the feeding of straw firmed the feces and generally reduced digestive problems.

- Hay should not be fed in conjunction with grazing as the sheep tended to reduce their grazing activity in anticipation of being fed hay. If hay is required to be fed in order to rest the pasture, then the sheep should be removed from the pasture and fed exclusively on hay until the pasture is ready for grazing.

- Lambs will not finish to the 110 to 115 pound range solely on grass. Creep feeding with grazing or removing for finishing will be required. Lambs on grass reached a finished condition at 90 pounds which the patrons felt to be too light to market.

- Old ewes or unhealthy ewes were not capable of performing well under the grazing system utilized by the pasture. The twice daily trips to the paddocks and return trips to the night corral demanded that the ewes be in good shape to handle the extra stress associated with the moving and handling of the large number of sheep involved in this type of pasture.

- Farm flocks which are unfamiliar with grazing require a training period and as such will produce poorer initially than flocks which are accustomed to grazing.

- Ewes cannot effectively handle triplets in a pasture with the grazing intensity utilized in this pasture. Ewes can handle two lambs but only if the ewe is young and healthy and her lambs enter the pasture weighing a minimum of 20 pounds each.

- Heat stress can be devastating on lamb performance, as evident by the 1988 results, if shelters are not provided.

- The assembly of the large numbers of lambs did create an interest by buyers which did work to the benefit of the individual producers and the sheep industry in general.

SUMMARY

This ADF pasture project was a success for a number of reasons. First, it showed that a well-constructed predator fence is very effective. Secondly, it showed that very high stocking rates, 9 to 10 ewe units per acre, could be achieved on an irrigated pasture. Thirdly, it showed that the concentration and production of good quality lambs does attract buyers that would otherwise be uninterested in small lots of lambs. Fourthly, it showed that finishing lambs on pasture to 110 to 115 pounds was not possible as about 90 pounds was the maximum achieved. Finally, the project was a success in that it provided answers to numerous other questions as outlined in the Observation and Conclusion Section.

For further information, attached are Items #4 and #5 which are the Annual Pasture Reports for 1987 and 1988.

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To establish an irrigated pasture for sheep to test the effectiveness of a predator control fence;

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PROCEDURE:

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In the 1988 grazing season, 1235 ewes and 1610 lambs were placed on the pasture with the total grazing season being from May 15 to October 3.

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ITEM I

FENCE DESIGN

(for ERDA construction tender)

Fence Sections 1 to 5 - (two miles) wood posts every 30 ft.

- 1 strand monova wire on bottom.
- 7 strands 12½ gauge high tensile wire, including a trip wire on the outside, about 9" above ground (see diagram 2).
- 1 electric gate.

Fence Sections 6 to 8 - total distance - 1500 ft.

- 3"- 4" x 8' wood posts every 22 ft., and 2"- 3" x 6' wood posts between 8' posts.
- 1 strand monova on bottom.
- 12 strands 12½ gauge high tensile wire, including trip wire (refer to U.S. design for wire spacings).
- tighteners, etc. similar to fence sections 1 to 5, except that cut-out switches are not required.
- 2 electric gates.

Fence Sections 9 to 16 - total distance just under 2 miles.

- 4"- 5" x 7' wood posts for brace assemblies, and mid-point of each section.
- 2"- 3" x 6' wood posts every 90', and 3/8" fiberglass posts every 30' in between.
- 4 strands 12½ gauge high tensile wire (diagram 4).

SASKATCHEWAN SHEEP AND WOOL
MARKETING COMMISSION

ERDA Irrigated Pasture Project

Diagram 1 - Overall Fence Layout

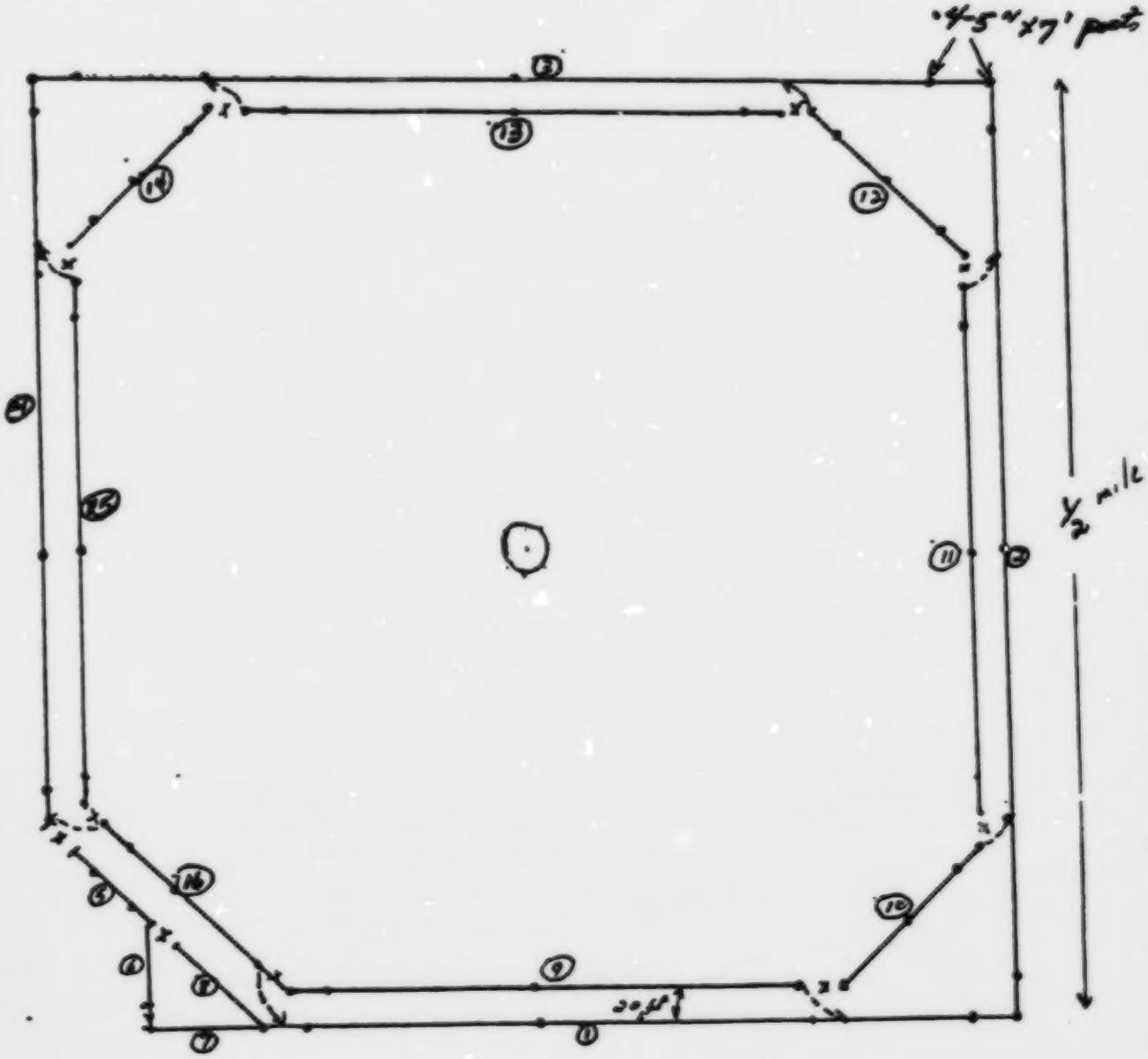
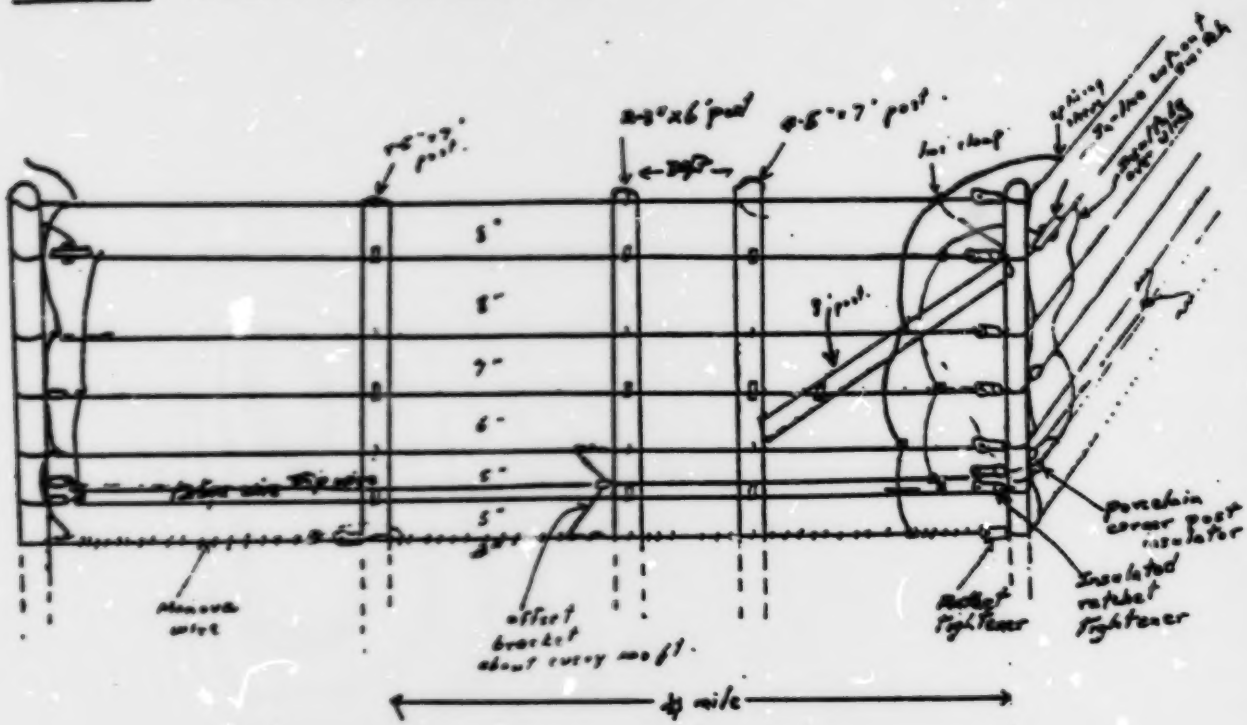


Diagram 2 - Fence Design (Sections 1 to 5)



Note: Brace assembly required at each side of corners and gates.

Diagram 3 - Fence Sections 6 to 8

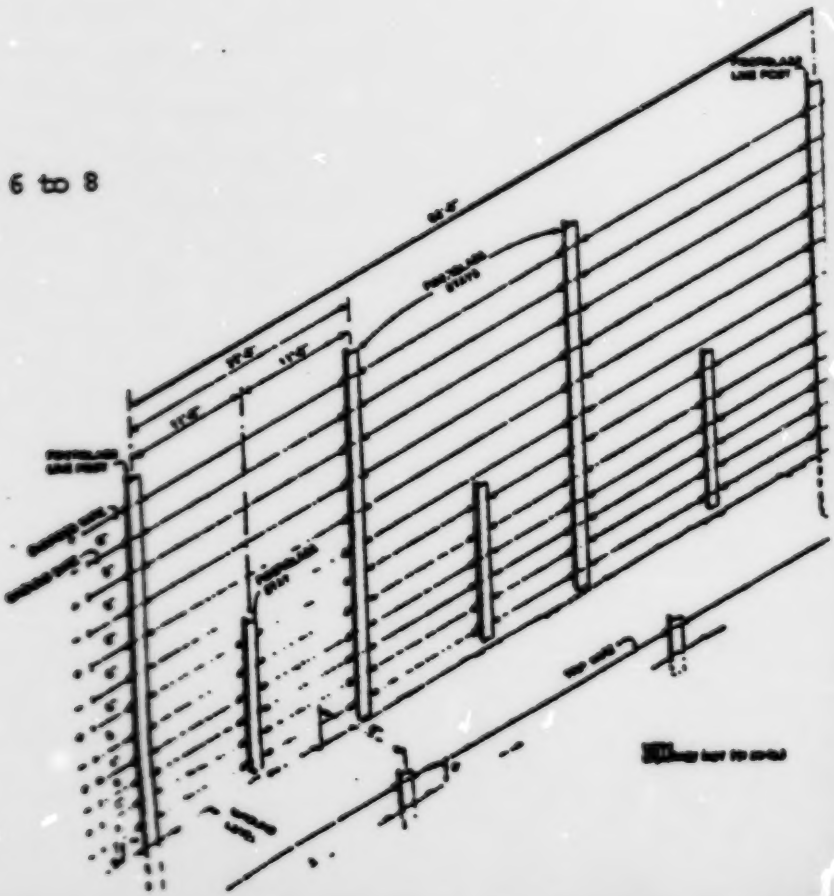
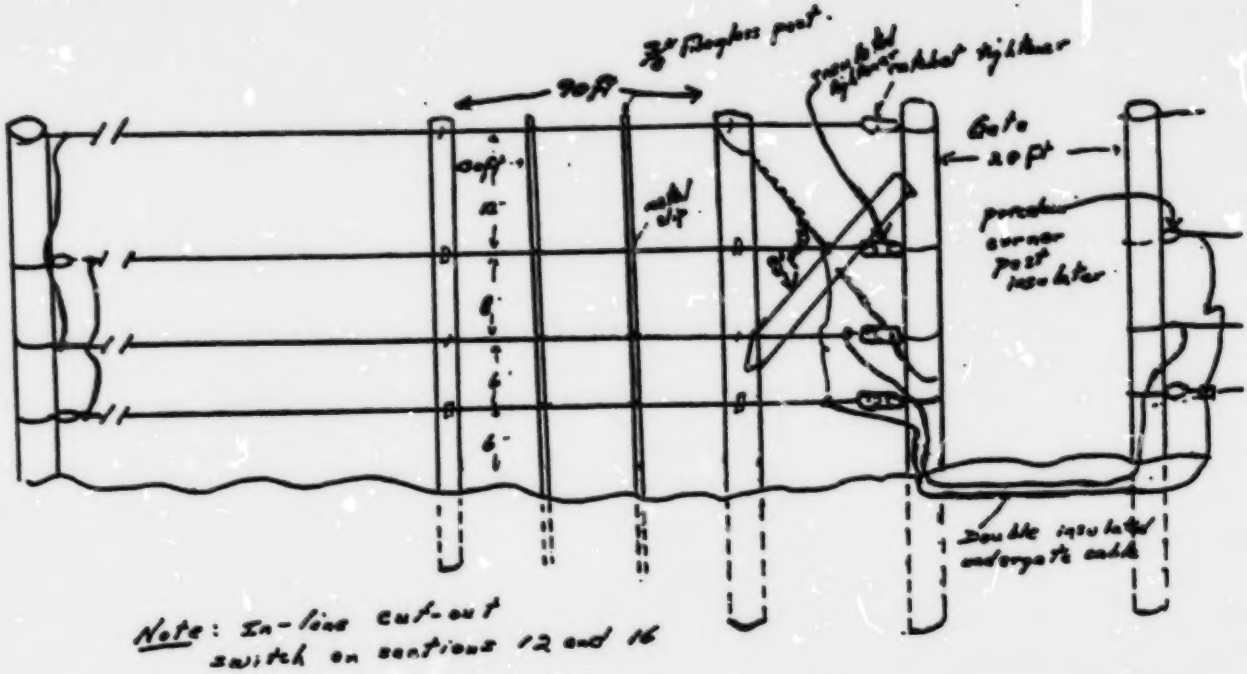


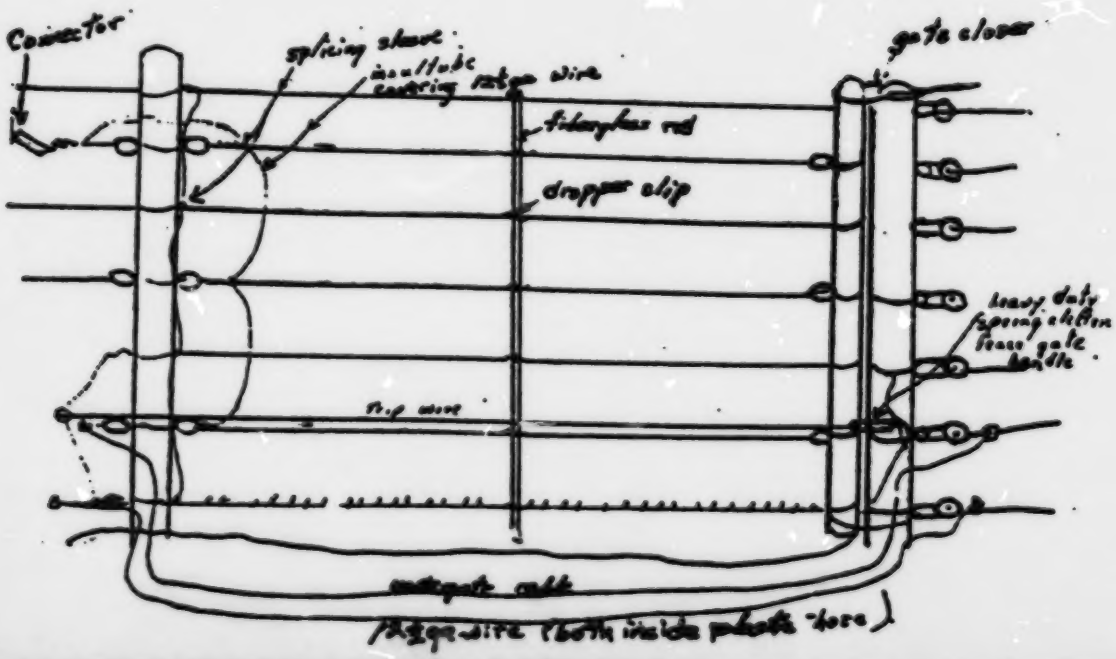
Diagram 4 - Fence Design ections 9 to 16)



Note: In-line cut-out switch on sections 12 and 16

Gate Design

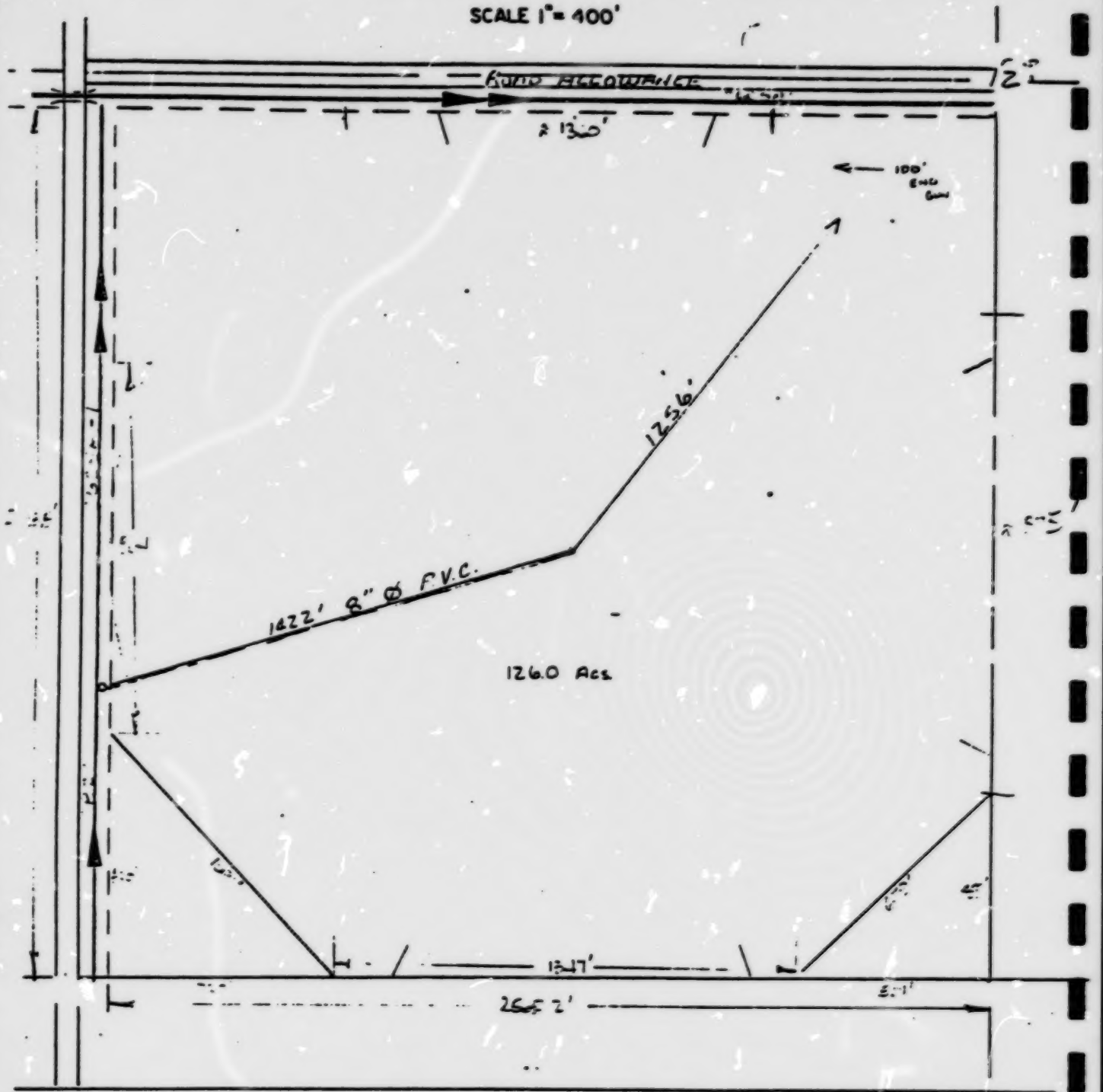
One gate for each of Sections 6,7 and 8.
Wire spacings same as for fence sections.



FENCE MATERIALS TENDER

(1 A Project - Irrigated Pasture)

	QUANTITY	ITEM
1.	1	Speedrite SP580 110V fencer or equivilent (5 Joules or more output).
2.	1	Replacement module for fencer supplied.
3.	52	Porcelain corner post insulators.
4.	150	9" offset bracket and insulator.
5.	40	New Zealand plastic corner post insulators.
6.	2000	New Zealand claw nail-on insulators.
7.	36	100 16 rolls 12½ gauge galvanized high tensile wire.
8.	12500'	16 gauge galvanized wire.
9.	150	Splicing sleeves for 12½ gauge wire.
10.	325'	Double insulated undergate cable.
11.	2	3/8" x 5' fiberglass rods.
12.	300	3/8" x 4' sharpened fiberglass posts.
13.	1100	"Quick" clips for 3/8" fiberglass posts.
14.	35	Dropper clips for 3/8" fiberglass rods.
15.	3	Heavy duty electric fence gate handles.
16.	9	Insulated reel with ratchet tightener, capable of holding one-half mile 16 gauge wire.
17.	6	Electric fence signs.
18.	150	Galvanized line (joint) clamps.
19.	3	Flexible connectors to disconnect power from gates.
20.	7	In-line cut-out switches.
21.	8	Speedrite isolator cable (to connect power to moveable fences).
22.	3	12M rolls insultube (to cover electrified wires at corners and gates).
23.	1	Lightning arrestor.
24.	58	Hayes permanent ratchet tighteners.
25.	2	Hayes ratchet tightener handles.
26.	57	Hayes insulated ratchet tighteners.
27.	9	80 rod rolls monova single strand barbed wire.
28.	6	10' galvanized ground rods or pipe.
29.	6	Galvanized ground rod clamps.
30.	12	4"- 5" x 8' pressure treated wood posts.
31.	100	3"- 4" x 8' pressure treated wood posts.
32.	60	4"- 5" x 7' pressure treated wood posts.
33.	450	2"- 3" x 6' pressure treated wood posts.
34.		Fence staples.
35.		4" spiral spikes.
36.	1	Digital Voltmeter.



GRANT APPLICATION TO RATE

110.0 ACRES CAPACITY

16.0 PIVOT 24-DEVELOPMENT

Ab & Eva Gorrill
Box 104, B[illegible], Sask. S0G 0L0
Ph [illegible]-725-4820

	QUANTITY	ITEM		
1.	1	Speedrite SP580 110V fencer or equivilent (5 Joules or more output).	339.95	33
2.	1	Replacement module for fencer supplied.	61.00	6
3.	52	Porcelain corner post insulators.	1.05	5
4.	150	9" offset bracket and insulator.	1.30	19
5.	40	New Zealand plastic corner post insulators.	0.45	1
6.	2000	New Zealand claw nail-on insulators.	0.01	4.
7.	36	100 16 rolls 12½ gauge galvanized high tensile wire.	62.00	23
8.	12500'	16 gauge galvanized wire.	0.01	1.
9.	150	Splicing sleeves for 12½ gauge wire.	0.18	2
10.	325'	Double insulated undergate cable.	0.18	5.
11.	2	3/8" x 5' fiberglass rods.	1.80	3
12.	300	3/8" x 4' sharpened fiberglass posts.	1.15	3.
13.	1100	"Quick" clips for 3/8" fiberglass posts.	.16	17
14.	35	Dropper clips for 3/8" fiberglass rods.	.14	
15.	3	Heavy duty electric fence gate handles.	4.30	1.
16.	9	Insulated reel with ratchet tightener, capable of holding one-half mile 16 gauge wire.	32.95	29
17.	6	Electric fence signs.	N/C	1
18.	150	Galvanized line (joint) clamps.	0.35	5.
19.	3	Flexible connectors to disconnect power from gates.	1.90	5
20.	7	In-line cut-out switches.	12.65	89
21.	8	Speedrite isolator cable (to connect power to moveable fences).	4.75	38
22.	3	12½ rolls insultube (to cover electrified wires at corners and gates).	7.50	22
23.	1	Lightning arrestor.	5.15	5
24.	58	Hayes permanent ratchet tighteners.	2.20	13
25.	2	Hayes ratchet tightener handles.	5.00	10
26.	57	Hayes insulated ratchet tighteners.	3.75	21
27.	9	80 rod rolls monova single strand barbed wire.	38.60	34
28.	6	10' galvanized ground rods ~~or~~ (pipe)	11.50	6.
29.	6	Galvanized ground rod clamps.	4.75	28
30.	12	4"- 5" x 8' pressure treated wood posts.	5.15	61
31.	100	3"- 4" x 8' pressure treated wood posts.	5.15	51
32.	60	4"- 5" x 7' pressure treated wood posts.	3.60	21
33.	450	2"- 3" x 6' pressure treated wood posts.	2.50	112
34.		Fence staples. (45.3 kg)	1.66	75
35.		4" spiral spikes.		
36.	1	Digital Voltmeter.	53.17	53

[illegible]

ITEM II

Creep Feeding Lambs on Irrigated Pasture

Final Report to Saskatchewan Irrigation Development Centre

J.J. McKinnon and Dr. R.D.H. Cohen

Department of Animal and Poultry Science

University of Saskatchewan

ABSTRACT:

One hundred and twenty five ewes and one hundred and ninety six lambs were utilized to demonstrate the value of creep feeding lambs grazed with ewes on irrigated pasture. Daily gains of creep and non-creep lambs were 0.36 and 0.17 lb respectively, averaged over the 97 day feeding period. Creep consumption averaged 1.17 lb / day. Based on a current market price of $ 0.75 per lb for live lamb and a cost of creep of $ 197.00 per tonne, the net return to creep feeding was $ 4.00 per lamb.

SUMMARY:

This project was designed to demonstrate to Saskatchewan sheep producers the value of providing supplemental creep feed to lambs grazed on irrigated pasture. The project was run in conjunction with the Riverside Sheep Coop, a producer group involved with the irrigated pasture at Outlook, Saskatchewan.

One hundred and twenty five ewes and one hundred and ninety six lambs were provided for the project by cooperating producers. Two dietary regimes were utilized. These included creep feeding plus grazing with ewes and pasture grazing with ewes. The demonstration commenced on May 20, 1988 and ran through August 24, 1988. Non-creep lambs were pastured with ewes twice daily from 0600 hrs to 0900 hrs and from 1700 hrs to 2000 hrs. Creep fed lambs and ewes were pastured from 0930 hrs to 1650 hrs.

Throughout the feeding period, creep fed lambs consistently outgained noncreep fed lambs. For the 97 day feeding period, daily gains for the creep and noncreep lambs were 0.36 and 0.17 lb. Cost of creep supplementation averaged $ 0.10 per head per day. At a current market price of $ 0.75 per lb live weight, the return to creep feeding averaged $ 4.00 per head. At $ 0.90 per lb, a return of $ 6.70 would be realized.

It is evident from this demonstration project that lambs grazed on irrigated pasture benefit from a supplemental energy source. Economic analysis indicates that the return to creep feeding is influenced by input costs and the market price for lamb.

It should be noted however, that due to the nature of this demonstration, it is not possible to statistically analyze the data. Thus it is not possible to state with a given level of confidence that these results are repeatable.

Background and Objectives:

In 1987, the Saskatchewan Sheep and Wool Marketing Commission (SSWMC) in cooperation with several Saskatchewan sheep producers operated an irrigated sheep pasture at Outlook, SK. A primary objective was to demonstrate the feasibility of finishing lambs off pasture. With respect to meeting this objective, the results of 1987 were disappointing. The carrying capacity of the pasture was inadequate for the number of animal units. This was particularly evident from July 15/87 onward when grass growth declined and feed consumption of the lambs started to increase. The problem deteriorated to the point that 450 lambs, weighing 75 lbs or more, were removed from the pasture on August 7, 1987. The remaining lambs were weaned and left on pasture with the ewes. The shift to solid feeding coupled with the decline in pasture quality caused the lambs to lose body condition. Subsequent growth rate throughout the remainder of the pasture season was poor. Those animals that did finish on pasture weighed 20-25 lbs less than the desired shipping weight. All lambs required a period in the feedlot to reach acceptable market weight.

The poor growth of lambs on irrigated pasture suggested that the nutrient content of the pasture failed to meet the nutritional needs of the animal. Research has shown that on poor quality pasture, energy intake is likely to limit growth. Under such circumstances, creep feeding has been shown to supplement the nutrient intake of growing lambs (Orskov 1977). No evidence exists however, that such supplementation benefits lambs on irrigated pasture. Therefore, this project was designed to demonstrate the value of creep feeding lambs on irrigated pasture and at what stage it is most beneficial to begin supplementation.

Methodology:

This project was run in conjunction with the irrigated sheep pasture at Outlook, Saskatchewan. This pasture is operated by the Saskatchewan Sheep and Wool Marketing Commission and several Saskatchewan sheep producers.

Seven cooperating producers supplied 125 ewes and 196 lambs for the project. These animals were housed using existing pasture and animal facilities. However, in order to feed the test lambs separately from the main flock, a section of pasture was fenced off and a gate installed to facilitate handling.

Two dietary regimes were utilized in this demonstration. These included:

1) creep feeding plus pasture grazing with ewes.
2) pasture grazing with ewes.

One hundred and eight lambs were assigned to the creep diet while 88 were assigned to the grazing only regime. Within each dietary regime, lambs were further assigned to the following treatments:

1) Creep Feed:

a) creep feed plus pasture grazing with ewes until market weight.

b) creep feed plus pasture grazing with ewes until 75 lb followed by feedlot finishing.

c) creep feed plus pasture grazing with ewes until 75 lb, then weaned and left on creep and pasture until market weight.

2) Non Creep:

a) pasture grazing with ewes until market weight.

b) pasture grazing with ewes until 75 lb followed by feedlot finishing.

c) pasture grazing with ewes until 75 lb, weaned and given access to creep and pasture until market weight.

Data collection procedures included:

a) monthly body weights.

b) calculation of period average daily gain.

c) daily creep feed consumption and cost of supplementation.

d) nutrient analysis of pasture and creep feed.

Results and Discussion:

The price of finished lambs fell dramatically during the latter stages of this project. As a result, cooperating producers cancelled their plans for feedlot finishing of the lambs. This forced an alteration in project design as only a few lambs had been placed in the feedlot. The remainder were maintained on pasture in their respective groups (creep vs non creep) until August 24, 1988, when the project was terminated. As a result, the project can only evaluate the effectiveness of creep feeding while grazing with ewes versus pasture grazing with ewes without creep feeding.

All lambs started the demonstration on May 20, 1988. The two groups of lambs were pastured separately. Non-creep lambs were pastured twice daily from 0600 hrs to 0900 hrs and from 1700 hrs to 2000 hrs. Creep fed lambs and ewes were pastured from 0930 hrs to 1650 hrs. Creep fed lambs received three forms of supplemented feed throughout the trial. These included a 17% crude protein starter (May 20 to July 7), a 13% ewe ration (July 7 to July 16) and a 15% finisher ration (July 16 to Aug 24). The nutrient composition of the starter ration is indicated in table 1. Table 2 illustrates the change in pasture quality throughout the summer. In addition, all lambs had access to a free choice 1:1 Ca:P mineral and blue salt.

Consumption of each creep supplement is illustrated in Table 3. Figure 1 illustrates creep consumption by period. Animals consumed on average 1.17 lbs of creep per day. The 17% starter ration was valued at $234.00 tonne as compared to $151.00 a tonne for the 15% finisher ration. Thus creep costs were greater during the early stages of summer as compared to the latter. Average cost of creep consumption per head per day was $0.10 per day (Table 4).

Start of test weights for the creep and non creep lambs averaged 36.8 and 42.8 pounds respectively (Figure 2). Respective weights on June 15 were 49.2 and 46.7 pounds. Average daily gains during this period were 0.50 and 0.16 pounds for the creep and non creep rations respectively (Figure 3). The difference in the weights of the creep fed lambs compared with the non-creep lambs continued to widen by July 25 and August 24 (Figure 2).

The second phase of this trial (June 15 - July 25) was characterized by unusually hot weather. Coupled with declining pasture quality (Table 2), the performance for all lambs deteriorated. The influence of the environment on performance may have been greater for the creep fed lambs, as the design of the demonstration necessitated that these animals graze throughout the day when temperatures were maximum. Average daily gains during this phase were 0.26 and 0.12 pounds for the creep and non-creep lambs respectively (Figure 3).

The final phase of creep feeding occurred over the period July 25 to August 24, 1988. During this period, performance improved considerably. Creep consumption increased (Figure 1) over the previous period (1.36 lb vs 1.10 lb). The performance of creep fed lambs was also superior to that of non-creep lambs during this period (0.4 vs 0.25 lbs/day) (Figure 3).

The improved performance of creep fed lambs is further evident when one considers the entire feeding period. Average daily gains of creep fed lambs were 0.36 lbs, while non-creep lambs only averaged 0.17 lbs (Figure 3). This difference in daily gain resulted in a total gain of 35.3 lbs for creep fed lambs versus 16.6 lbs for non-creep fed lambs. Taking account of the cost of creep feed and a current market price of $.75/lb for lamb, the return to creep feeding was $4.00/head. If the market price of lamb was $.90/lb, the return to creep feeding would increase to $6.83/head (Table 5). It should also be noted that the return to creep feeding will also be influenced by the cost of the supplemental feed.

Conclusion:

It is evident from this demonstration project that lambs grazed on irrigated pasture benefit from a supplemental energy source. The improved growth performance of creep fed lambs was noted throughout the feeding period. Economic analysis indicates that the return to creep feeding will be influenced by both input costs and the market price for lambs.

It should be noted that due to the nature of this demonstration, it is not possible to statistically analyze the data. Thus it is not possible to state with a given level of confidence that these results are repeatable.

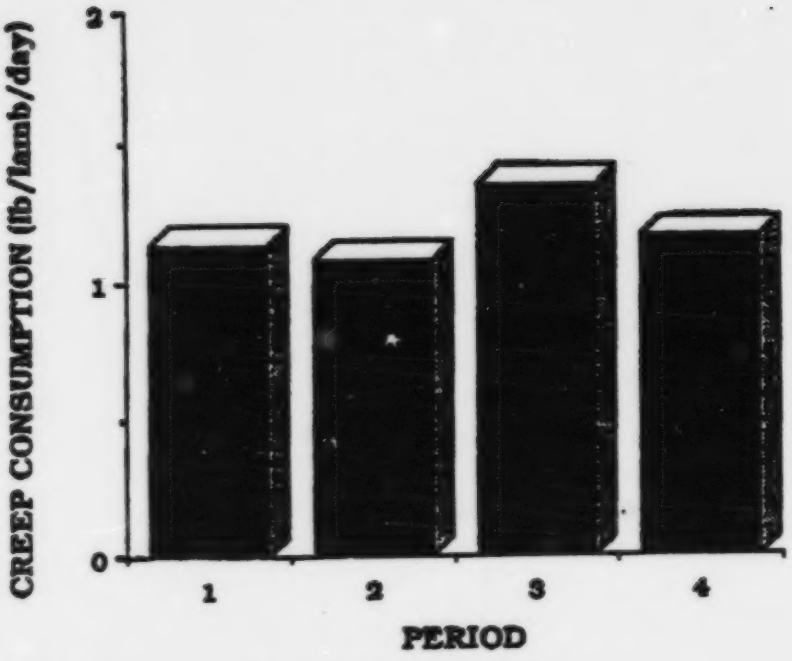


Fig 1. Creep consumption by lambs for each period.
(Period 1: May 20-Jun 15; 2: Jun 15-Jul 25; 3: Jul 25-Aug 24; 4: May 20-Aug 24)

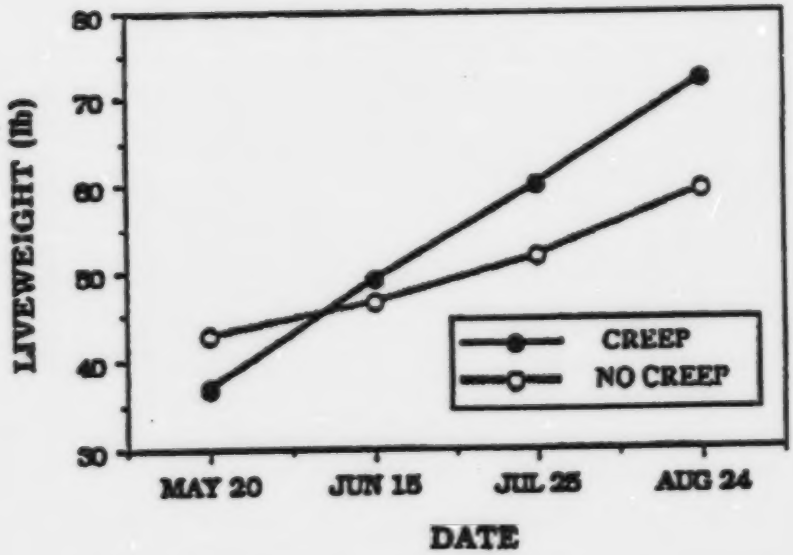


Fig 2. The effect of creep feed on the liveweight of lambs on irrigated pasture.

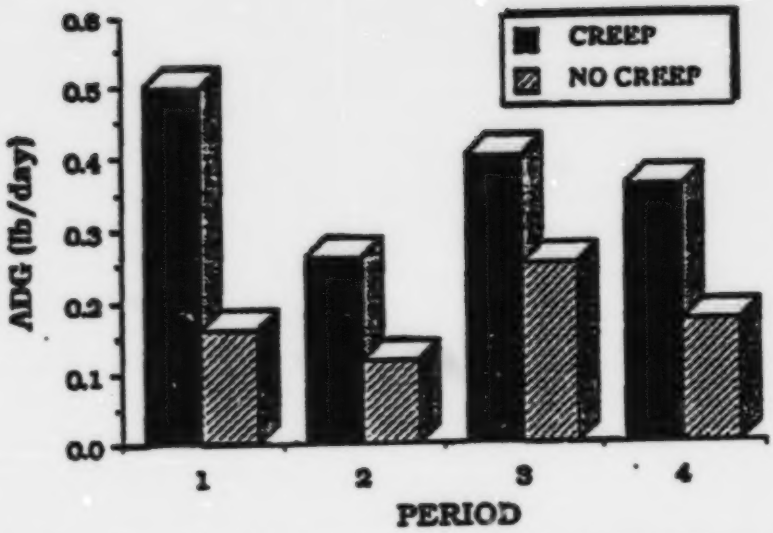


Fig 3. The effect of creep feed on the average daily gain of lambs on irrigated pasture.

(Period 1: May 20-Jun 15; 2: Jun 15-Jul 25; 3: Jul 25- Aug 24; 4: May 20-Aug 24)

Table 1

Nutrient composition of 17% starter ration fed from May 20, 1988 to July 7, 1988.

Nutrient	Manufacturer Claim	As Analyzed
Protein (min)	17.0%	17.7%
Fat (min)	3.0%	-
Fibre	10.0%	69.0% TDN
Calcium	0.9%	0.9%
Phosphorus	0.4%	0.4%
Sodium	0.2%	-
Copper	14.0 mg/kg	-
Vitamin A	20,000 IU/kg	-
Vitamin D	1,500 IU/kg	-
Vitamin E	35 IU/kg	-

Table 2

Nutrient Composition of irrigated pasture at Outlook, SK., 1988.

	90% Dry Matter				
Sample Date	DM	CP	TDN	CA	P
May 18/88	25.10	18.3	60	0.57	.26
June 15/88 (North pasture)	25.10	15.88	61	0.46	.28
June 15/88 (South pasture)	27.60	12.09	57	0.44	.19
July 20/88 (North pasture)	19.93	25.39	59	0.51	0.35

Table 3.

Consumption of creep supplements by lambs on irrigated pasture (lbs)

Supplement	Date	Number of Animals	Total Consumed	Average/ animal/day
17% Starter	May 20 - July 7	108	6050	1.14
13% Ewe Ration	July 7 - July 16	108	551	0.59
15% Finisher	July 16 - Aug 24	104	5505	1.36
Total	May 20 - Aug 24	107	12,106	1.17

Table 4

Cost of supplementation of creep feed on irrigated pasture.

Supplement	Total Consumed	Days Fed	Total Cost	Cost/head/Day
17% Starter[1]	6050	49	$643.5	$0.12
13% Ewe[1]	551	9	$ 58.5	$0.06
15% Finisher[2]	5505	39	$377.5	$0.10
Total	12106	97	$1079.5	$0.10

1 Value of 17 and 13% creeps was $234.00/tonne.

2 Value of 15% finisher was $151.00/tonne.

Table 5

Net returns to creep feeding lambs on irrigated pasture (per lamb).

Treatment	Weight Gain (lb)	Value of gain	Cost of gain	Return to Creep Feeding
		Live Price of Lamb $.75/lb		
Creep	35.3	$26.5	$10.00	$4.00
Non Creep	16.6	$12.5	-	
		Live Price of Lamb $.90/lb		
Creep	35.3	$31.8	$10.00	$6.90
Non Creep	16.6	$14.9	-	

Appendix:

PUBLICATIONS: There has been no publications to date. The producer group that was involved in this demonstration was responsible for pasture tours, news releases and television reports on the project.

EXPENDITURES: See University of Saskatchewan Accounts Report.

Personnel: Nadine Ramsey (Summer Student) - 100%
John McKinnon (Research Associate) - 7%.

EQUIPMENT: Fencing gate as per project outline (gate was installed at pasture and remains part of fencing at the pasture).

ITEM III
VERSIDE SHEEP CO-OP TO SASK W ER

FINAL REPORT

RE: CONTRACT #SP-88CA-23 ENTITLED
"FINISHING AND MARKETING OPTIONS FOR LAMBS RAISED ON IRRIGATED PASTURE"

a) Abstract

Finishing and marketing lambs directly off an irrigated pasture has many advantages providing the lamb markets are not depressed, or projected to be depressed, at the time of marketing.

Advantages are low stress on lambs, no weight loss during transfer, lambs readily accepted the forage and cereal based ration as they were well accustomed to forage due to grazing, and lambs were of similar weight and body condition resulting in ease of feeding and marketing.

The major disadvantage observed was that once lambs were placed on a finishing ration, delaying the marketing was impractical. This forced producers to accept a low market price whereas delayed marketing would have provided a higher price.

b) Technical report

Note attachment #1.

c) Non-technical Report and Practical Recommendations

Observations and conclusions based on figures presented in final report.

Advantages gained by taking lambs off pasture to an adjacent feedlot:

1) Low stress on lambs;

2) No weight loss;

3) Changeover from grass to dry rations readily accepted; and

4) Easy accessability to the general public allows for higher farmgate sales.

Disadvantages:

1) Unless lamb numbers are 1000 head or more the costs involved with setting up a finishing operation make the operation of a feedlot uneconomical.

d) Publications

No publications

. . . 2

e) Expenditures

July 10 - Rental of Equipment		$ 1,500.00
Aug 9 - Rental of Feedlot		500.00
Oct. 13 - Labour		500.00
Dec. 12 - Rental of Feedlot		500.00
Dec. 12 - Labour		500.00
	Total	$ 3,500.00

The project was allocated $5,000.00 but, due to reduced numbers of lambs finished, only $3,500.00 was required.

f) Personnel

Shepherd - Norman McLeod

g) Equipment Purchased

All equipment and facilities were rented for the project.

H12/L
88.12.19

RIVERSIDE SHEEP CO-OPERATIVE LTD.

Re: Demonstration Project of Lamb Feedlot

1) Original goals of demonstration (see application forms.)

2) Number of lambs placed in feedlot: 300 head
Reasons for shortfall in numbers:

a) Extreme heat conditions slowed the growth of lambs on pasture, resulting in lambs that were not ready to go into feedlot until late August and early September.

b) The price of finished lamb fell drastically during this period. Prices were not expected to rise until mid-November or later.

c) Price of prepared rations rose by 12%.
Price of hay rose by 21%.
Price of lamb fell by 29½%.

d) Due to the above mentioned conditions, the majority of producers involved in the project decided, after much discussion, to forgo further participation. Most producers felt that by not finishing lambs at this time and feeding home-grown rations, their costs would be less.

3) Sales: 60 head

All sales were to private individuals, with the exception of 15. These went to the local butcher.

Cost to consumer: -$1.00 per pound, live weight, plus processing.

-$2.25 per pound, dressed *

*when the national average price for finished lamb was 59¢ per pound-62¢ per pound, live weight.

As mentioned previously, low market prices were the reason why larger quantities of lamb were not offer- for sale.

4) Disadvantages:

1) Low lamb numbers mean high labour costs. It costs the same amount to look after 300 lambs as it does to look after 2000.

Labour for this project was $1500.00 -

$1500.00 ÷ 2000 = 75¢/head
$1500.00 ÷ 300 = $5.00/head

Based on $10.00/hour and travel for the time involved.

2) Rental of equipment and feedlot with small numbers again means high costs:

rental of equipment $1500.00 ÷ 300=$5/head
rental of feedlot $1000.00 ÷ 300=$3.33/head

Based on 2000 head, costs are:

rental of equipment = 75¢/head
rental of feedlot = 50¢/head

3) By commiting large numbers to the feedlot, producers would have no choice but to finish lambs as quickly as possible and accept the average price, which under normal conditions would be acceptable. However, conditions, as noted, were not normal.

5) Advantages:

1) By taking lambs straight off pasture to an adjacent feedlot, we found:

a) low stress on lambs
b) no weight loss
c) lambs readily accepted the changeover to dry rations from milk and grass.
d) lambs were all in the same weight range and body condition.
e) all lambs could go on the same rations, making labour less intensive.
f) apart from a small percentage, weight gains were the same on a per head basis.

2) High quality product and easy accessability enabled us to sell lamb to the general public at a price 65% higher than the national average at that time.

3) Interest was shown by large quantity buyers until the price fell.

4) On large numbers, the cost of labour, equipment and feedlot rent would have been minimal.

6) Budget Outline

a) Cost per lb. gained on 300 head:

Prepared ration	$1500.00
Hay	870.00
Equipment rental	1500.00
Feedlot rental	1000.00
Labour	1500.00
Trucking	350.00
Total	$6720.00

$6720.00 ÷ 300 head = $22.40/head

Average weight of lambs in	75 lbs.
Average weight of lambs out	112 lbs.
Average gain	37 lbs.
Cost/lb. gained	60½¢

b) Cost/lb. gained on 2000 head, based on above figures:

Prepared ration	$10,000.00
Hay	5,800.00
Equipment rent	1,500.00
Feedlot rent	1,000.00
Labour	1,500.00
Trucking	2,333.33
Total	$22,133.33

$22,133.33 ÷ 2000 = $11.06/head
With the same gain (37 lbs./head)
Cost per lb. gained would be 30¢/lb.

SUMMARY

On low numbers such as were in this project, unless lambs can be sold farmgate (directly to the consumer), the costs involved in a feedlot would be prohibitive to most producers. (see budget outline A)

However, on large numbers, the figures show a definite advantage to having a feedlot. (see budget outline B)

It must be remembered that there is no provision here for capital outlay. Also, no death loss and no fluctuation in labour costs for higher numbers. Also not included are marketing costs and cost of final destination trucking.

It is unfortunate that this project was not fully completed, although sufficient data was gathered to show basic costs and feasability of such an operation.

MAR 23 '89 16:18 SASK WHEAT OOTLOOK

Saskatchewan Sheep and Wool Marketing Commission

ITEM IV

1986 COMMUNITY SHEEP PASTURE PROJECT REPORT

Project No. 2.5-1

It gives me pleasure to submit this report relevant to the agreement signed May 14th, 1986.

The initial action was the leasing of land. Our first effort was to try to lease some land from SEDCO, which seemed the sensible route considering the land was considered government real estate. As it turned out SEDCO was quite out of line in that they wanted in excess of $11,000.00 per year. We finally got some private land leased at a price of $8,500.00 per year. To date we have been able to stay under budget on all aspects of this project.

The Commission appointed a Committee to be responsible for this project. The Committee is made up of Larry Sothmann (Commissioner), Colleen Sawyer (Commissioner), Gerry Gross (Sask. Agric. Irrigation Branch), Dale Kelman (producer from Loreburn) and Jim Koal (Commission General Manager).

Mr. Gerry Gross has been of immeasurable assistance by way of guidance Gerry worked with researchers at Lethbridge to come up with a combination of grasses which are expected to maintain quality grass growth through the grazing season. Also, Gerry was the advisor as to the fertilizer requirements. Along with Gerry being so close to the pasture Dale Kelman was appointed by the Committee as Project Foreman. Dale oversaw land preparation, irrigation and other related aspects at Outlook.

After the land was prepared for seeding and then seeded, the next job which was addressed was that of tendering for someone to look after the irrigation. This job was advertised with three serious applicants wanting the job. We finally selected a person who did not follow instruction with the result that we had to replace him and hire someone else to finish the seasons' irrigation. The result of this man not getting the water on when he should have has left us with the decision of decreasing the number of ewes from approximately 1100 to 800 odd plus lambs. Until we are satisfied that the pasture can carry up to 1100 we will see what 800 odd will do.

As summer progressed we decided to sell the oat hay crop standing. We advertised the crop and selected the highest bidder at $31.50 per ton. At the end of January we still are owed in excess of $2,000.00 by the buyer of the hay. The volume of hay was much more than he expected, as a result he has tried to sell some of it off the pasture, where part of it remains in large round bales.

Right after the hay was tendered we advertised for fence and fencing of the pasture. A number of people submitted tenders, with the result that both jobs were let to Lamb Acres Farm of Strasburg. This person specializes in electric fencing and materials. The major part of the fencing has been developed with final work to be completed in the spring of 1987.

All in all this appears to be a good project which has a lot of producers in the Outlook area having a very serious look at possible diversification. There are a lot of questions being asked and of course opinions being expressed.

There are a number of jobs which were planned as the year closed and aspects of these were going to be developed through the winter. One of these is the development of a watering system. After looking the situation over it was decided to acquire a water tank on wheels with portable troughs which could be moved wherever the sheep are, thus getting away from digging a well.

I do hope this report is informing and clear as to the current status of this project.

Respectfully submitted

Jim Koal
GENERAL MANAGER

JK/sfh
See attached record of financial activity.

1986 ERDA

May 27	Deposit Gov't Grant		60,000.00	$60,000.00
May 28	Chq.#001	Green Valley Farms (Landowners)	(8,500.00)	$51,500.00
	Chq.#002	Outlook Fertilizers	(7,161.00)	$44,339.00
	Chq.#003	Riverbend Coop	(400.00)	$43,939.00
	Chq.#004	Kintyre Farms Ltd.	(60.00)	$43,879.00
	Chq.#005	Sask.Soil Testing Lab	(48.00)	$43,831.00
	Chq.#006	Ab Gorrill	(125.00)	$43,706.00
	Chq.#007	Colleen Sawyer	(214.00)	$43,492.00
	Chq.#008	Dale Kelman	(295.60)	$43,196.40
	Chq.#009	Larry Sothmann	(199.00)	$42,997.40
June 10	Chq.#010	Outlook Printers	(15.48)	$42,981.92
June 11	Chq.#011	Sk.Wheat Pool - Farm Service	(1,930.66)	$41,051.26
June 17	Chq.#012	Arvid Fonstad (Contractee for Irrigation)	(325.00)	$40,726.26
June 27	Chq.#013	Jim Koal - Travel	(913.75)	$39,812.51
July 4	Chq.#014	Dale Kelman	(235.20)	$39,577.31
	Transferred ITD		(60.00)	$39,517.31
	Service Charge		(5.00)	$39,512.31
July 7	Chq.#015	Outlook Fertilizers	(665.00)	$38,847.31
July 10	Chq.#016	Mann Agencies Ltd.	(224.00)	$38,623.31
July 11	Chq.#017	R & M Larson (Land Preparation)	(1,750.00)	$36,873.31
July 25	Chq.#018	Arvid Fonstad	(325.00)	$36,548.31
	Debit Memo - Bank Transfer - Arvid		(265.00)	$36,283.31
July 31	Transfer - S.S.W.M.C. - Admin		(1,178.49)	$35,104.82
Aug. 5	Chq.#019	Western Producer	(102.30)	$35,002.52
	Chq.#020	Green Valley Farms	(1,760.00)	$33,242.52
Aug. 8	Deposit (Evashenko) Purchase of Hay		500.00	$33,742.52
Aug. 11	Chq.#021	D. Peardon	(35.00)	$33,707.52
Aug. 13	Chq.#022	Jim Koal - Travel	(131.80)	$33,575.72
Aug. 14	Chq.#023	Colleen Sawyer	(90.00)	$33,485.72
	Chq.#024	Larry Sothmann	(128.40)	$33,357.32
	Chq.#025	Ab Gorrill	(121.80)	$33,235.52
	Chq.#026	Dale Kelman	(307.00)	$32,928.52
Aug. 20	Chq.#027	Outlook Printers	(33.84)	$32,894.68
	Chq.#028	Outlook Fertilizers	(1,827.00)	$31,067.68

Aug. 26	Chq.#029	Arvid Fonstad	(325.00)	$30,742.68
Aug. 28	Chq.#030	Ab Gorrill	(50.00)	$30,692.68
Aug. 30	Chq.#031	Jim Koal - Travel	(75.58)	$30,617.10
Sept. 23	Chq.#032	Brian Spiggot (Irrigation Contractee)	(800.00)	$29,817.10
Sept. 30	Chq.#033	Jim Koal - Travel	(95.56)	$29,721.54
Oct. 3	Chq.#034	Rain Maker Irrigation	(42.96)	$29,678.58
	Chq.#035	Western Producer	(290.40)	$29,388.18
Oct. 15	Chq.#036	Dale Kelman	(348.97)	$29,039.21
Nov. 7	Chq.#037	Lamb Acres Farm (Contractee for Fence & Fencing)	(8,902.32)	$20,136.89
Nov. 25	Chq.#038	Dale Kelman	(243.80)	$19,893.09
Dec. 1	Deposit (Evashenko)		5,000.00	$24,893.09
Dec. 15	Chq.#039	S.S.W.M.C. - Skin	(42.00)	$24,851.09
Dec. 24	C[illegible].#040	Colleen Sawyer	(106.00)	$24,745.09
	Chq.#041	Dale Kelman	(96.20)	$24,648.89
	Chq.#042	Larry Sothmann	(154.00)	$24,494.89
	Chq.#043	Cancelled		
Dec. 31	Chq.#044	Jim Koal - Travel	(37.00)	$24,457.89
Dec. 31	Debit Memo - Transfer ITD		(112.00)	$24,345.89

1987 COMMUNITY SHEEP PASTURE PROJECT REPORT
Project No. 2.5-1

I am pleased to submit the following report relevant to the activities through 1987.A number of things happened and became obvious through the 1987 pasture season. Some were expected, some weren't, and needed to be dealt with once the sheep were in the pasture.

One of the first things we realized is that we needed a central alley-way to move the sheep onto the grazing areas further away from the night coral.

Another thing we found was that the grass had to be topped off, because the sheep numbers could not keep up with the growth. You will also find enclosed along with this report an excellent report compiled by Norm MacLeod along with the assistance of the Saskatchewan Water Corporation Irrigation Service. In 1987 there were in excess of 700 ewes with lambs and in 1988 there will be approximately 1200 ewes with lambs.

A couple of questions which we were wondering about were clearly answered.

One was that the electric fence did do an excellent job of predator control with no losses due to predators resulting.

The other question was whether or not lambs could be finished on grass. What we found was that the lambs had good finish while they were still on the ewes (75 - 90 lbs.), but once the ewes weaned them, they lost finish. Their growth was very good (this was good for replacement ewe lambs) but the grass did not provide sufficient energy to maintain the finish. The result of this was that we had to remove the lambs once the ewes weaned them. Note: this is the intent for 1988 (remove the lambs and put them into a feedlot), which will be adding another positive aspect to the research results.

I do hope that you find this report informative and we anxiously look forward to the receipt of the grant for $8,550.00.

Enclosed, please find a report on 1987 expenditures along with projected budgeting for the 1988 year. The difference between the grant and the expected expenses will be made up by pasture fees paid by the patrons. It is the Commission's intent to have all costs identified and funds in place to pay all bills before the sheep are released from the pasture in the fall.

Respectfully submitted

Jim Koal, General Manager
Saskatchewan Sheep and Wool
Marketing Commission

1988 E.R.D.A. PASTURE PROJECT BUDGET

Wages	$ 11,000.00
Power	3,000.00
Water Tax	1,300.00
Land Lease	8,500.00
Fertilizer	8,000.00
Miscellaneous	9,000.00
TOTAL	$ 40,800.00

Miscellaneous

Larsons	$ 1,000.00
Vet. Services	1,000.00
Salt/Mineral/Straw	1,000.00
Irrigation/Maintenance	800.00
Telephone	150.00
Truck	700.00
Outside Services	500.00
Bank Charges	200.00
Fence	500.00
Project Administration	3,100.00
	$ 9,000.00

1988 E.R.D.A. PASTURE PROJECT No. 2.5-1

REVENUE

Patrons Fees 1200 Ewes at $25.00/Ewe	$ 30,000.00
ERDA Grant April 1/88	8,550.00
ERDA Grant January 1/89	2,800.00
	$ 41,350.00

The patrons have agreed to cover all expenses incurred at the pasture in 1988 which will not be taken care of by E.R.D.A. funding.

A number of the original patrons (1987) have formed a cooperative with the intent of continuing the pasture beyond the termination of this specific project.

There has been talk in the past by producers wishing to establish a feed lot. The afore mentioned Coop is doing this already in the 1988 grazing season. So there is already some positive response to this project. Along with the feed lot the other big bonus is that there is a definate expansion of production which this program instigated.

1987 TRANSACTIONS - E.R.D.A. ACCOUNT

Balance Forward				$24,345.89
Jan. 19	Chq.#045	Green Valley Farms (Water Taxes)	(1,421.00)	22,924.89
Jan. 19	Chq.#046	Sask. Power Corp.	(966.35)	21,958.54
Jan. 30	Chq.#047	Colleen Sawyer	(90.00)	21,868.54
Jan. 30	Chq.#048	Larry Sothmann	(128.40)	21,740.14
Jan. 30	Chq.#049	Jim Koal	(57.72)	21,682.42
Feb. 4	Deposit	Pasture Fees	455.00	22,137.42
Feb. 10	Chq.#050	Valley West Irr. (Allum. Tubing)	(187.50)	21,949.92
Feb. 10	Chq.#051	Dale Kelman	(252.00)	21,697.92
Feb. 18	Deposit	Pasture Fees	120.00	21,817.92
Feb. 22	Chq.#052	Autotran Swather (Tank & Trailer)	(2,239.00)	19,578.92
Feb. 25	Chq.#053	Home Hardware (Float)	(28.50)	19,550.42
Mar. 5	Chq.#054	Rain Maker Irr. (Shaft Drive)	(48.12)	19,502.30
Mar. 5	Chq.#055	Fed. Coop (tags)	(721.35)	18,780.95
Mar. 6	Deposit	Pasture Fees	250.00	19,030.95
Mar. 16	Chq.#056	Ron's Welding (Install float)	(330.75)	18,700.20
Mar. 16	Chq.#057	Rain Maker Irr.	(48.12)	18,652.08
Mar. 16	Chq.#058	Outlook Animal Cl.	(866.68)	17,785.40
Mar. 20	Deposit	Gov't Grant	19050.00	36,835.40
Mar. 31	Chq.#059	Jim Koal (travel)	(95.20)	36,740.20
Apr. 3	Chq.#060	John's Ford Auto (1975 Truck)	(1,000.00)	35,740.20
Apr. 3	Chq.#061	Dale Kelman	(147.60)	35,592.60
Apr. 6	Deposit	(Crop Income)	2,375.00	37,967.60
Apr. 7	Chq.#062	Cancelled		
	Chq.#063	Cancelled		
Apr. 23	Chq.#064	S.G.I. (License for truck)	(284.00)	37,683.60
Apr. 23	Chq.#065	Green Valley Farms (Annual Lease)	(8,500.00)	29,183.60
Apr. 29	Chq.#066	Revel Superstore (Fence Posts)	(176.40)	29,007.20
Apr. 29	Chq.#067	Norm MacLeod (Salary advance)	(200.00)	28,807.20
Apr. 30	Chq.#068	Cancelled		
Apr. 30	Chq.#069	Cancelled		
Apr. 30	Chq.#070	Sask. Power (Farm Ser. Hook Up)	(1,527.00)	27,280.20
	Transfer	Emp. Benefits & Admin. Fee	(4,318.65)	22,961.55

May 12	Chq.#071	Autotran Swather (Trailer Hitch)	(145.43)	22,816.12
May 12	Chq.#072	S'toon Stockyards (Loading troughs)	(20.00)	22,796.12
May 14	Chq.#073	Miller L/S (Troughs)	(220.00)	22,576.12
May 15	Chq.#074	Norm MacLeod (Salary)	(680.23)	21,895.89
May 19	Chq.#075	Jim Koal (travel)	(225.41)	21,670.48
May 19	Chq.#076	S.S.W.M.C. (supplies)	(1,793.95)	19,876.53
May 19	Chq.#077	Jim Koal (supplies)	(43.80)	19,832.73
May 25	Chq.#078	Dale Kelman	(627.32)	19,205.41
May 25	Chq.#079	Scott Kelman	(90.00)	19,115.41
May 25	Chq.#080	Tom MacCallum	(90.00)	19,025.41
May 25	Chq.#081	Tonya Koal	(30.00)	18,995.41
May 25	Chq.#082	Riverbend Coop (supplies)	(285.84)	18,709.57
May 25	Chq.#083	Sask. Wheat Pool (supplies)	(9.25)	18,700.32
May 25	Chq.#084	S.S.W.M.C. (supplies)	(329.00)	18,371.32
May 26	Chq.#085	Jim Koal (travel)	(191.01)	18,180.31
May 28	Chq.#086	Norm MacLeod (salary)	(680.23)	17,500.08
May 28	Chq.#087	S.S.W.M.C. (supplies)	(4.00)	17,496.08
June 12	Chq.#088	Norm MacLeod (salary)	(680.23)	16,815.85
June 15	Chq.#089	Ab Gorrill (Fencing)	(1,100.00)	15,715.85
June 18	Chq.#090	Outlook Electric	(1,863.62)	13,852.23
June 18	Chq.#091	Ron's Welding	(12.50)	13,839.73
June 19	Chq.#092	South Sask. Irr.	(1,134.00)	12,705.73
June 26	Chq.#093	Lou Ouellette (Fencing)	(1,250.00)	11,455.73
June 27	Chq.#094	Norm MacLeod (salary)	(680.23)	10,775.50
June 27	Chq.#095	Norm MacLeod (Outside Services)	(682.54)	10,092.96
June 30	Chq.#096	Dale Kelman	(407.30)	9,685.66
June 30	Chq.#097	Jim Koal (travel)	(248.32)	9,437.34
July 6	Chq.#098	Larry Sothmann	(90.00)	9,347.34
July 8	Chq.#099	Richards Home Hdwe. (supplies)	(41.43)	9,305.91
July 8	Chq.#100	(Rain Maker Irr.	(281.76)	9,024.15
July 8	Chq.#101	Autotran Swather	(1,113.48)	7,910.67
July 8	Chq.#102	John Konst (Baling Hay)	(1,241.96)	6,668.71
July 8	Chq.#103	Riverbend Coop	(1,669.52)	4,999.19
July 8	Chq.#104	Sask. Soil Testing	(24.00)	4,975.19
July 13	Chq.#105	Norm MacLeod	(671.83)	4,303.36

July 14	Chq.#106	SWP - Farm Service	(95.54)	4,207.82
July 14	Chq.#107	Ab Gorrill (Fencing)	(1,025.98)	3,181.84
July 15	Chq.#108	S.S.W.M.C. (supplies)	(42.95)	3,138.89
July 15	Chq.#109	Scott Kelman	(162.20)	2,976.69
July 15	Chq.#110	Tom MacCallum	(111.00)	2,865.69
July 30	Chq.#111	Norm MacLeod (salary)	(671.83)	2,193.86
July 20	Chq.#112	Riverbend Coop	(2,429.97)	-236.11
July 20	Chq.#113	Outlook Fertilizer	(2,778.24)	-3,014.35
July 23	Chq.#114	Ab Gorrill (Fencing)	(958.27)	-3,972.62
July 23	Chq.#115	Cancelled		
July 31	Chq.#116	Outlook Auto	(395.68)	-4,368.30
Aug. 10	Chq.#117	Tom MacCallum	(30.00)	-4,398.30
Aug. 10	Chq.#118	Scott Kelman	(30.00)	-4,428.30
Aug. 10	Deposit	Pasture Fees	566.00	-3,862.30
Aug. 12	Chq.#119	Town of Outlook (B.B.Q.)	(75.00)	-3,937.30
Aug. 17	Chq.#120	Norm MacLeod (Phone)	(40.15)	-3,977.45
Aug. 17	Deposit	Pasture Fees Riverbend Coop	4,068.02	90.57
Aug. 23	Chq.#121	Norm MacLeod (salary)	(671.83)	-581.26
Aug. 19	Chq.#122	Dale Kelman	(639.70)	-1,220.96
Aug. 20	Chq.#123	Jim Koal	(224.13)	-1,445.09
Aug. 20	Chq.#124	Kathy Koal	(88.40)	-1,533.49
Aug. 31	Chq.#125	Norm MacLeod (salary)	(671.83)	-2,205.32
Sept. 14	Chq.#126	Norm MacLeod (salary)	(671.83)	-2,877.15
Sept. 21	Chq.#127	Sask. Tel	(432.20)	-3,309.35
Sept. 28	Chq.#128	Norm MacLeod (salary)	(671.83)	-3,981.18
Sept. 18	Deposit	Phone (Norm)	219.67	-3,761.51
Sept. 28	Chq.#129	Municipality of Rudy	(100.00)	-3,861.51
Sept. 28	Chq.#130	Rain Maker Irr.	(253.97)	-4,115.48
Sept. 28	Chq.#131	Outlook Locker (B.B.Q.)	(112.07)	-4,227.55
Sept. 28	Chq.#132	Autotran Swather	(2.00)	-4,229.55
Sept. 28	Chq.#133	Outlook Fertilizer	(2,422.59)	-6,652.14
Sept. 28	Chq.#134	Johns Ford Auto	(175.19)	-6,827.33
Sept. 28	Chq.#135	Sask. Power	(568.18)	-7,395.51
Sept. 28	Chq.#136	Richards Home Hdwe.	(2.85)	-7,398.36
Sept. 28	Chq.#137	Ab Gorrill (Fencing)	(243.60)	-7,641.96
Sept. 28	Chq.#138	Sask. Wheat Pool (Farm Service)	(266.34)	-7,908.30

Oct. 1	Deposit	Pasture Fees	9,355.50	1,447.20
Oct. 1	Chq.#139	Norm MacLeod (holiday pay)	(578.74)	868.46
Oct. 6	Chq.#140	Dale Kelman	(158.78)	709.68
Oct. 9	Chq.#141	Norm MacLeod (salary)	(781.31)	-71.63
Oct. 8	Deposit	Pasture Fees	715.00	643.37
Nov. 3	Deposit	Phone (Norm)	311.73	955.10
Nov. 25	Chq.#142	Sask. Tel	(480.14)	474.96
Nov. 26	Transfer	Loan from Admin	1,629.57	2,104.53
Dec. 14	Deposit	Gov't Grant	6,450.00	8,554.53
Dec. 17	Chq.#143	Outlook Animal Clinic	(3,396.53)	5,158.00
Dec. 17	Chq.#144	Sask. Tel Cmr	(5.93)	5,152.07
Dec. 17	Chq.#145	Cancelled		
Dec. 17	Chq.#146	South Sask. Irr. District	(346.04)	4,806.03
Dec. 17	Chq.#147	Outlook Printers	(3.44)	4,802.59
Dec. 17	Chq.#148	Kintyre Farms	(60.00)	4,742.59
Dec. 17	Chq.#149	Blair Ostrander	(28.25)	4,714.34
Dec. 17	Chq.#150	R/M Larson	(96.00)	4,618.34
Dec. 17	Chq.#151	Gerald Gross	(75.00)	4,543.34
Dec. 17	Chq.#152	Riverbend Coop	(598.79)	3,944.55
Dec. 17	Chq.#153	SWP - Farm Service	(1,999.74)	1,944.81
		Bank Charges	(285.57)	1,659.24
	Transfer	Emp. Benefits To Admin	(1,431.88)	227.36

ITEM V

FINANCIAL STATEMENT

For

E.R.D.A. PASTURE 1988

INCOME

Pasture Fees - 1236 ewes @ $25/hd.		$30,900.00
Flock Inspections		931.00
Government Grant		8,500.00
Well Grant received		181.34
Well Grant expected		154.00
	TOTAL	$40,666.34

EXPENSES

Land Lease	$ 8,500.00
Wages & Expenses	16,093.40
Water	1,134.00
Power	2,000.00 ?
Fertilizer	5,253.58
Interest on late payment for Fertilizer	64.66
Supplies - Home Hdwe. (Well)	965.13
- Fence (Auto Tran)	706.20
- S.W.P.(Salt & Min.)	841.80
(Posts)	77.50
- Coop - Fuel	200.51
- Lumber	285.95
- Hdwe.	263.75
- Oil	51.75
- Misc.	120.00
Hay	1,309.88
Vet & Medicine	2,600.00
Electric Fence	961.00
Telephone	892.23
Straw & Tractor usage	581.00
TOTAL	$42,902.34

Deficit to date - $2,236.00

Please Note: Usage and income of hay

38 tons @ $85/ton

Kelamn - 18 tons
Koal - 3 tons
Pasture Use - 18 tons

(Kelman - Koal offset by expenses.)

SASKATCHEWAN SHEEP AND WOOL MARKETING COMMISSION

ANNUAL PASTURE REPORT

1988

Report prepared with the assistance of
Saskatchewan Water Corporation
West Central Region

by

Pasture Manager, N. McLeod

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I. Sheep Numbers In and Sheep Numbers Out

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I. SHEEP NUMBERS IN AND SHEEP NUMBERS OUT

Sheep Numbers In	Ewes	Lambs	Total
May 15th	250	250	500
May 16th	200	290	490
May 17th	300	410	710
May 18th	124	153	277
May 19th	342	480	822
May 27th	19	27	46
Total In	1,235	1,610	2,845

Sheep Numbers Out	Ewes	Lambs	Ewes & Lambs	Total
July 15th		200		200
August 10th	25			25
September 26th			191	191
September 27th			157	157
September 28th			496	496
September 29th			233	233
September 30th			231	231
October 1st			506	506
October 2nd			300	300
October 3rd			415	415
Deaths and Sales			91	91
Total Out				2,845

II. FORAGE PRODUCTION AND GRAZING MANAGEMENT

May 15th to June 10th: Pasture was divided into 8 grazing areas. Ewes grazed each area until grass was eaten to within 1/2" of ground. (4 1/2 to 5 days per area.)

Ewes were allowed to graze 5:00 a.m. to 8:30 a.m.
6:00 p.m. to 9:00 p.m.

June 11th: Two grazing areas were cut for hay (1,304 bales).

June 11th to July 15th: Grazing areas were still the same size; however, increased consumption by lambs meant that each area lasted for only 2 1/2 to 3 1/2 days.

July 16th: 200 lambs were taken out to alleviate some of the grazing pressure.

July 17th: Pasture was split into 6 areas with 3 to 4 grazing days on each area.

July 25th: All ewes and lambs were grazed on summerfallow fields adjacent to pasture for 15 days to allow pasture to rest and regrow. This was done to enable us to keep all animals on pasture until the end of the season.

August 10th: Grazing areas were enlarged to 4 areas, 4 days on each area.

September 10th: Pasture was divided into 2 areas. Sheep grazed different areas on alternate days.

September 20th: Pasture in 1 area. All animals were off pasture by October 4th, 1988.

III. PASTURE OPERATIONS REPORT

May 15th to July 15th: See 'Health Report'.

July 15th to August 10th: Due to natural grass growth decline and consumption increase in lambs, ewes were grazed off pasture for 15 days to allow regrowth of grasses. This allowed us to keep all animals on pasture until the end of the season.

August 10th to September 10th: No major problems.

September 10th to October 6th: No major problems.

Straw was fed free choice all season. The total straw fed was one hundred 800-lb. round bales. This cut down on bloat problems incurred the previous year. Also, by feeding straw, grass consumption was down on a per-head basis, thus our stocking rate for the quarter was adequate.

IV. IRRIGATION

May 10th to May 31st	3/4" / 6 days
May 31st to June 30th	1 1/4" / 6 days
July 1st to August 1st	1 3/4" / 5 days
August 1st to September 1st	1 3/4" / 6 days
September 1st to September 20th	1 1/2" / 6 days
September 21st to October 3rd	3"

Total water through irrigation	28.5 inches
Total water through rainfall	3.7 inches
Total water for season	32.2 inches

Due to extreme heat conditions, grass was not as lush as the previous year, and protein content was 2% lower.

V. FERTILITY

May 5th: 50 pounds N (actual) was put on the whole pasture; thereafter, 25 pounds was put on as each area was grazed.

At no time after the initial application was more than 25 pounds per acre put on, thus cutting out bloat problems which occurred in the previous season.

For economic reasons it may be cheaper to put the first 50 pounds of N (actual) on as dry fertilizer. This can be done before animals arrive on pasture.

VI. HEALTH PROGRAM 1988

For pre-entry program see 1987 Annual Report "Health Program Recommendations".

Again, as was found last year, older animals cannot stand up to the intensive management system and should not be brought to the pasture.

The bloat problem incurred last season was 99% eliminated.

The only major health problem which occurred this year was in young lambs due to extreme heat and dust blowing. Pneumonia caused a number of deaths in lambs.

VII. FENCE

Once again the fence proved to be 100% effective against predators.

For grazing area fences (see recommendations from 1987 season) one fence was electrified netting and the other was 5 strands of plastic wire interwoven with steel threads to carry current. Both were 100% effective as long as power was switched on.

VIII. PUBLIC RELATIONS

1. General Public

Interest generated by the sheep pasture was higher than expected with very few days going by without visitors from the general public being present. Bus tours were organized and were shown the pasture.

2. Landowners

Again, as was the case last year, many local landowners were frequent visitors to the pasture. As a result, there have been other pastures set up following the same principle as this one (cattle pastures).

3. Media

Local papers carried articles about the pasture which was well received by the general public.

A followup to last year's TV show (CFQC Farmgate) was done and has been aired twice already this fall.

Various articles were printed in different farm magazines, resulting in increased interest from landowners all through the province and some inquiries from Alberta and Manitoba.

Visitors to Saskatchewan from the United Kingdom, Australia, New Zealand and the United States took time to visit the pasture, being sheep farmers themselves.

IX. PASTURE MANAGEMENT STRATEGY RECOMMENDATIONS

See 1987 Recommendations

Option 3 was used this season and proved to be the most effective way of managing the pasture.

Straw was fed all season. Haying was, and will be, required every year or as an alternative, silage could be made.

Any feed taken off the pasture could be fed back to the livestock to extend the length of the pasture season.

Note: It was found that producers who had animals in the pasture last year....

1. Increased their lambing percentages;
2. Took less feed to keep animals over winter than in previous years;
3. Any producer who brought sheep back to the pasture has less losses than in the previous year, and less losses than producers who had animals in for the first time.

Maximum stocking rate per quarter section is 1,300 ewes and lambs.

NM:dh
88.11.17
dh

ITEM VI

E.R.D.A. PASTURE INVENTORY

Purchase Date	Item	Value (At time of Purchase)
Nov. 7 - 86	Fence-electric	7,962.76 (attachment)
Feb. 10 - 87	Aluminum tubing (Water-trough)	187.50
Feb 22 - 87	Water tank-trailer	2,239.50
April 3 - 87	1/2 Ton Ford truck (75)	1,000.00
April 29 - 87	Fence posts	176.40
May - 87	Co-op Garage 12x16	500.00
May 12 - 87	Trailer Hitch	145.43
May 14 - 87	Concrete troughs (4)	220.00
June 8 - 87	Mesh Gates (4)	771.49
July 18 - 87	Electric service	1,130.42
July 13 - 88	Fencer #116 Speedrite	360.00
Oct 11 - 88	6-Rolls Wire Mesh	706.20